UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,186	10/12/2001	Felix G.T.I. Andrew	2980	1415

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EXAMINER
HANNE, SARA M

ART UNIT	PAPER NUMBER
2179	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/976,186	ANDREW, FELIX G.T.I.
	Examiner	**Art Unit**	
	Sara M. Hanne	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 May 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the amendment received on May 24, 2006. Claims

1-24 are pending in the application.

Claim Objections

2.   Claim 1 objected to because of the following informalities: The last two lines in

the claim states "determine the date of the first and second application programs". In

accordance with the specification, the office believes this is a typographical error, and

for the purpose of examination interprets "date" as "state". Appropriate correction is

required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

4.   Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention.

Claim 1 recites the phrase "communicates **uniquely** with the software ...", page

2, line 14.

Claim 11 recites the phrase "from an **independent** database ... ", page 5, line 3.

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.   Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claim 1 recites the limitation "the input method manager database" in line 13.

There is insufficient antecedent basis for this limitation in the claim.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete

for omitting essential elements, such omission amounting to a gap between the

elements. See MPEP § 2172.01. The omitted elements are: what is being stored in the

software input method database. The amended recitation of Claim 1, beginning in line 5

is ambiguous. It is unclear what is stored in said database, is it the user input, the input

method or the input panel?

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 1-7 and 9-24 are rejected under 35 U.S.C. 103(a) by Sigl, US Patent

6714220 and further in view of Dutta et al., US Patent 6724370, hereinafter Dutta.

As in Claim 1, Sigl teaches a system to provide user input using a plurality of

software input methods (subset panels) independent of the application program

(numeric keypads are common to many applications), each with a panel configured to

receive the user input based on user interaction stored in a software input method

database (Figure 2, Ref. 3.2) and a software input method manager independent of the

application program (Col. 2, lines 58-61 and Col. 6, lines 15 et seq.) configured to select

a first method from the plurality of input methods based on the state of the application

program (field selected) and a second input method from the plurality of input methods

to enable the user to interact with that input method to the application program ("help

information", Figure 3, Ref. 3.5 and 3.6) wherein the input method manager database

communicates uniquely with the software input method manager (upper lower limits),

and an application state determination mechanism coupled to the software input method

manager and the application to determine the state of the application program (field

selected). While Sigl teaches the plurality of software input methods selected according

to the application program state, they fail to explicitly teach a plurality of application

programs (excluding the software input method) where the second input method is

based on a determined state of a second application program as recited in the claims.

In the same field of the invention, Dutta teaches a software input method manager

(virtual keyboard manager) with a plurality of software input methods similar

(customizable touchscreen keyboard) similar to that of Sigl. In addition, Dutta further

teaches a plurality of application programs to which the second input method is based

on a determined state of a second application program (Col. 2, line 48 et seq.), a

software input method database (Fig. 6, 8 and corresponding text) and the input method

manager database communicates uniquely with the software input method manager

(Fig. 6, 9 with corresponding text). It would have been obvious to one of ordinary skill in

the art, having the teachings of Sigl and Dutta before him at the time the invention was

made, to modify the software input system for using different input panels configured to

receive user input, wherein the independent method manager selections the method

based upon a determined state of the application program to enable user interaction

with the panel to provide input taught by Sigl to include the multiple application

programs beyond the software input method manager of Dutta, in order to obtain a

multiple input method independent from multiple application programs using an

application program state to determine which input method to present to the user. One

would have been motivated to make such a combination because an predictable

dynamic input system for all keyboard-input accepting applications would have been

obtained, as taught by Dutta.

As in Claim 2, Sigl teaches the application program to communicate the state to

the SIP method manager through the application state determination mechanism

(Column 3, lines 1-9).

As in Claim 3, Sigl teaches a component external to the application program to

determine the state of the application program that hosts the application state

determination mechanism and communicates the state to the SIP method manager

(Column 6, line 51 et seq.).

As in Claim 4, Sigl teaches the application program state corresponding to the

field having input focus (Column 2, lines 42-44).

As in Claim 5, Sigl teaches the application program communicating data

corresponding to the field to the SIP method manager where the SIP method manager

selects the input method based on the data (Figure 3, Ref. 3.3).

As in Claim 6, Sigl teaches the state of the application program corresponds to a

field having input focus (Col. 4, line 30) and where the SIP method manager selects the

input method based on the data corresponding to the field (Figure 3, Ref. 3.3).

As in Claim 7, Sigl teaches the application program communicating key related

data to the SIP method manager which configures some keys of the input panel are

based on the key related data (Figure 3, Ref. 3.4 and 3.5).

As in Claim 9, Sigl teaches the key-related data to include a string corresponding

to a meaning of a variable key (the specified key is a string).

As in Claim 10, Sigl teaches a database of previous use input information, such

that the software input method configures some keys on the input panel based on the

previous user input information (previous use for the selected field).

As in Claim 11, Sigl teaches a computer implemented method for receiving

application program state data at a software input method manager (Figure 3, Ref. 3.2),

via a application state determination mechanism independent of the application program

and software input method manager (field selected), the software input method

manager independent of the application program (Col. 2, lines 58-61 and Col. 6, lines

15 et seq.), selecting an input method from the software input methods (Figure 3, Ref.

3.3), each software input method independent of the application program (numeric

keypads are common to many applications), and having an input panel configured to

receive user input based on user interaction (Figure 3, Ref. 3.5 and 3.6), and returning

key data to the application program corresponding to user interaction with the input

panel (Figure 3, Ref. 3.8), the input panel having a displayed key that when actuated

returns a string of at least two characters to the application program (the ok button

returns the string in Ref. 2.3 of Figure 2).   While Sigl teaches the plurality of software

input methods selected according to the application program state, with a key which

when actuated returns a string of characters, they fail to explicitly teach a plurality of

application programs excluding the software input method, and an independent

database of input methods and as recited in the claims. In the same field of the

invention, Dutta teaches a software input method manager (virtual keyboard manager)

with a plurality of software input methods similar (customizable touchscreen keyboard)

similar to that of Sigl. In addition, Dutta further teaches a plurality of application

programs to which the second input method is based on a state of a second application

program (Col. 2, line 48 et seq.) and an independent database of input methods (Fig. 6,

8 and corresponding text). It would have been obvious to one of ordinary skill in the art,

having the teachings of Sigl and Dutta before him at the time the invention was made, to

modify the software input system for using different input panels configured to receive

user input, wherein the independent method manager selections the method based

upon a state of the application program to enable user interaction with the panel to

provide input with a key which when actuated returns a string of characters taught by

Sigl to include the second application program, beyond the software input method

manager, for which an input method is selected from an independent database of Dutta,

in order to obtain a multiple input method independent from multiple application

programs using an application program state to determine which input method to

present to the user. One would have been motivated to make such a combination

because a predictable dynamic input system for all keyboard-input accepting

applications would have been obtained, as taught by Dutta.

As in Claim 12, Sigl teaches receiving key configuration data in relation to the

selected input method and configuring a keys on the input panel are based on the key

configuration data (See Claim 7 rejection *supra*).

As in Claim 13, Sigl teaches a computer-readable medium having computer-

executable instructions (Column 3, lines 1-9).

As in Claim 14, Sigl teaches a computer implemented method for receiving

application program state data at a software input method manager via an application

state determination mechanism that is independent of the application program and

independent of the software input method manager, the application state determination

mechanism and software input method manager independent of the application

program corresponding to the application program state data (Col. 2, lines 58-61 and

Col. 6, lines 15 et seq.), selecting an input panel based on the application program state

data, the input panel independent of the application program, displaying keys on the

input panel to enable user interaction with the input panel, and returning key data to the

application program corresponding to user interaction with the input panel (See Claim

11 rejection *supra*). While Sigl teaches the plurality of software input methods selected

according to the application program state, they fail to show a plurality of application

programs excluding the software input method as recited in the claims. In the same

field of the invention, Dutta teaches a software input method manager (virtual keyboard

manager) with a plurality of software input methods similar (customizable touchscreen

keyboard) similar to that of Sigl. In addition, Dutta further teaches a plurality of

application programs to which the second input method is based on a state of a second

application program (Col. 2, line 48 et seq.) and a database of input panels (Fig. 6, 8

and corresponding text). It would have been obvious to one of ordinary skill in the art,

having the teachings of Sigl and Dutta before him at the time the invention was made, to

modify the software input system for using different input panels configured to receive

user input, wherein the independent method manager selections the method based

upon a state of the application program to enable user interaction with the panel to

provide input taught by Sigl to include the multiple application programs beyond the

software input method manager of Dutta, in order to obtain a multiple input method

independent from multiple application programs using an application program state to

determine which input method to present to the user. One would have been motivated

to make such a combination because a predictable dynamic input system for all

keyboard-input accepting applications would have been obtained, as taught by Dutta.

As in Claim 15, Sigl teaches receiving data corresponding to a communication from the application program (See Claim 2 rejection *supra*).

As in Claim 16, Sigl teaches receiving data corresponding to a communication component external to the application program (See Claim 3 rejection *supra*).

As in Claim 17, Sigl teaches the selecting an input panel to comprise loading an input method (Figure 3, Ref. 3.4 and 3.5).

As in Claim 18, Sigl teaches the selecting an input panel to comprise notifying a loaded input method (popup window 2.1).

As in Claim 19, Sigl teaches receiving key configuration information corresponding to the state, and configuring keys on the input panel are based on the key configuration data (See Claim 7 rejection *supra*).

As in Claim 20, Sigl teaches receiving key configuration information comprising receiving data corresponding to a communication from the application program (See Claim 2 rejection *supra*).

As in Claim 21, Sigl teaches configuration information comprising receiving data corresponding to a communication from a component external to the application program (See Claim 3 rejection *supra*).

As in Claim 22, Sigl teaches receiving data corresponding to a communication from a database (the stored keys are a database).

As in Claim 23, Sigl teaches returning a string of at least two characters in response to a single displayed key being actuated (the ok button returns the string in Ref. 2.3 of Figure 2).

As in Claim 24, Sigl teaches a computer-readable medium having computer-executable instructions (See Claim 13 rejection *supra*).

9.   Claim 8 is rejected under 35 U.S.C. 103(a) as being anticipated by Sigl, US Patent 6714220, and of Dutta et al., US Patent 6724370, hereinafter Dutta, and further in view of Cobbley et al. US Patent Application Publication 2002/0085038.

Sigl and Dutta teach the method of Claims 1-7 as seen *supra*. While Sigl teach the sending of key related data with the multiple input methods along with Dutta's teachings of application programs, they fail to show the use of XML format used to communicate the key-related data to the software input method as recited in the claims. Cobbley et al. teaches a keyboard similar to that of Sigl and Dutta. In addition, Cobbley et al. further teaches using of XML format to communicate key related data ("text entry blocks may use particular coding such as hypertext markup language (HTML) coding or other languages including extensible mark up language (XML)", Paragraph 15). It would have been obvious to one of ordinary skill in the art, having the teachings of Sigl and Dutta and Cobbley et al. before him at the time the invention was made, to modify the key-related data communication for multiple applications taught by Sigl and Dutta to include the usage of the XML format of Cobbley et al., in order to obtain the transmitting of key-related data using XML format. One would have been motivated to make such a combination because an Internet capable input system would have been obtained, as taught by Cobbley et al.

Response to Arguments

Applicant's arguments filed 5/24/06 have been fully considered but they are not persuasive. The examiner still supports the teachings of Yogaratnam, however the Dutta reference covers more of the claim in accordance with the newly amended claim limitations and maybe more appropriate depending on the intended meaning of the currently ambiguous limitation of claim 2 rejected under 112 2nd Paragraph *supra*.

In response to the arguments regarding Sigl, the examiner disagrees. Sigl teaches a handheld implemented system in which programs such as the main plant control system application and the help information program. As suggested in the description of the invention, the invention is created not only for chemical plant programs, but for any palmtop device application requiring data input, in order to save display space (Col. 1). The chemical plant program is only one implementation and the method need not be specific to chemical plants. However all of the claim limitations are not explicitly recited in Sigl. Thererfore, Dutta has been incorporated into the rejection to more explicitly illustrate how a input method manager works with multiple application programs to show that this limitation is not new.

In response to the argument that Sigl does not teach an input method manager independent of the application program as in Claims 1, 11 and 14, the examiner disagrees. Sigl shows the separate instruction describing the separate programs, and when the help application is needed it is dynamically called upon, it is not constantly

running along with the plant control system application. Furthermore, Dutta also teaches this limitation (see rejections *supra*).

In response to applicant's argument that the references fail to show a database of previous user input information, wherein the software input method (that is independent of the application program) configures some keys on an input panel', the examiner disagrees. Sigl teaches the user sets limit values in the interface of Figure 1 that are stored in database memory (Figure 4). These values are used to dynamically configure which keys will be presented on the input panel.

In response to the argument that Sigl does not teach that components external to an application program determine the state of the application program the examiner disagrees. The previous argument applies here as well as the argument that a user could be a component external to the application program, as well as a mouse input control program. Furthermore, previous use is taught by Sigl (*supra*) and Dutta (Fig. 8 and corresponding text).

Conclusion

10.   The prior art made of record on form PTO-892 and not relied upon is considered

pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111(c) to

consider these references fully when responding to this action. The documents cited

therein teach choosing an input device according to application program information

and configuring keys based on application state.

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sara M. Hanne whose telephone number is (571) 272-

4135. The examiner can normally be reached on M-F 7:30am-4:00pm, off on alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

smh

WEILUN LO
SUPERVISORY PATENT EXAMINER